

Abstract

Carbonaceous, composite tooling fabricated from pitch-based or coal-based cellular or porous products, "carbonaceous foams" having a density of preferably

5 between about 0.1 g/cm³ and about 0.8 g/cm³ that are produced by: 1) conventional pitch foaming processes or; 2) the controlled heating of coal particulate preferably up to $\frac{1}{4}$ inch in diameter in a "mold" and under a non-oxidizing atmosphere.

According to a specifically preferred embodiment, the starting material coal has a free swell index as determined by ASTM test D720 of between about 3.5 and about

10 5.0.

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